

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In re Patent Application of

STERCHI et al.

Serial No. 10/078,526

Filed: February 21, 2002

Title: SYSTEM AND METHOD FOR CONTROLLING ANIMATION BY TAGGING
OBJECTS WITHIN A GAME ENVIRONMENT



Atty Dkt. -723-1259

C# M#

TC/A.U.: 2628

Examiner: P. Pappas

Date: August 20, 2007

Handwritten initials and a large 'X' mark.

Mail Stop Appeal Brief - Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

☐ **Correspondence Address Indication Form Attached.**

☐ **NOTICE OF APPEAL**

Applicant hereby **appeals** to the Board of Patent Appeals and Interferences
from the last decision of the Examiner twice/finally rejecting \$500.00 (1401)/\$250.00 (2401) \$
applicant's claim(s).

☒ An appeal **BRIEF** is attached in the pending appeal of the
above-identified application \$500.00 (1402)/\$250.00 (2402) \$ 500.00

☐ Credit for fees paid in prior appeal without decision on merits -\$()

☐ A reply brief is attached. (no fee)

☐ Petition is hereby made to extend the current due date so as to cover the filing date of this
paper and attachment(s)
One Month Extension \$120.00 (1251)/\$60.00 (2251)
Two Month Extensions \$450.00 (1252)/\$225.00 (2252)
Three Month Extensions \$1020.00 (1253)/\$510.00 (2253)
Four Month Extensions \$1590.00 (1254)/\$795.00 (2254) \$

☐ "Small entity" statement attached.

Less month extension previously paid on -\$()

TOTAL FEE ENCLOSED \$ 500.00

☒ **CREDIT CARD PAYMENT FORM ATTACHED.**

Any future submission requiring an extension of time is hereby stated to include a petition for such time extension.
The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or
asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this
firm) to our **Account No. 14-1140**. A duplicate copy of this sheet is attached.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
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APPEAL BRIEF

Sir:

Applicant has appealed to the Board of Patent Appeals and Interferences (Notice of Appeal filed June 20, 2007) from the last decision of the Examiner (Final Office Action dated March 20, 2007). An appeal brief pursuant to 37 C.F.R. § 41.37(c) is now presented.

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(I) REAL PARTY IN INTEREST

The real party in interest is Nintendo of America Inc, a corporation of the country
of the United States of America.

(II) RELATED APPEALS AND INTERFERENCES

The appellant, the undersigned, and the assignee are not aware of any related appeals, interferences, or judicial proceedings (past or present), which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

(III) STATUS OF CLAIMS

Claims 1-16 are pending and have been rejected. Claims 1-16 have been rejected.

The rejections of claims 1-16 are being appealed. No claims have been substantively allowed.

(IV) STATUS OF AMENDMENTS

No amendments have been filed since the date of the latest Final Rejection.

Accordingly, the current status of the claims is the same as that presented in the
Amendment filed December 27, 2006.

(V) **SUMMARY OF CLAIMED SUBJECT MATTER**

Each independent claim, each dependent claim argued separately, and each claim having means plus function language is summarized below including exemplary reference(s) to page and line number(s) of the specification.

A. Introduction

The invention of the claims relates to techniques for “tagging” objects in a three-dimensional, virtual environment. For example, a game developer can “tag” an item in the game environment. When an animated character walks near the “tagged” item, the animation engine can cause the character’s head to turn toward the item, and mathematically computes what needs to be done in order to make the action look real and normal. The tag can also be modified to elicit an emotional response from the character. For example, a tagged enemy can cause fear, while a tagged inanimate object may cause only indifference or indifferent interest. To further customize reactions, the tags may be embedded with tag information to cause a particular reaction. For example, tags may be embedded with tag information to designate a type of reaction for the user-controlled character and/or a type of reaction for an object associated with the tag when the user-controlled character comes in proximity to the tag.

B. Independent Method Claim 1

Independent method claim 1 relates to a method of animating a user-controlled character in a virtual three-dimensional environment of a dynamic three-dimensional game space (page 8, line 21 to page 9, line 4; Figs. 1-2). The three-dimensional environment of the three-dimensional game space in which the user-controlled character will be animated is rendered (page 17, lines 10-14; Figs. 1-9, reference numeral 1002 in

Fig. 11). A tag is defined at a location in the three-dimensional virtual environment that is external to the user-controlled character (page 9, lines 3-4; reference numerals 12 and T in Figs. 1-2). Tag information is assigned to the tag that designates a type of reaction for the user-controlled character and a type of reaction for an object associated with the tag when the user-controlled character comes in proximity to the tag (page 4, lines 21-23; reference numeral 10 in Figs. 7A and 7B). The user-controlled character is animated using a scripted animation sequence in response to user inputs (page 10, lines 3-6; reference numeral 10 in Figs. 1 and 5). It is detected when the user-controlled character is within a predetermined proximity to the tag (page 9, lines 4-9; reference numeral 10 and T in Figs. 1-2). When the user-controlled character is within a predetermined proximity to the tag, the location of the tag and the tag information is used to dynamically modify the user-controlled character's animation and the animation of the object in the three-dimensional virtual environment associated with the tag in real time (page 9, lines 4-9; reference numeral 10 and T in Figs. 1-2). The tag is defined at the location such that the tag is at least initially not apparent to the user (page 4, lines 6-8, page 9, lines 9-11, page 10, line 23 to page 11, line 1; T1 and T2 in Figs. 6-9).

C. Independent Method Claim 7

Independent method claim 7 relates to a method of controlling the animation of a user-controlled character in a virtual three-dimensional world of a dynamic three-dimensional game space (page 8, line 21 to page 9, line 4; Figs. 1-2). The three-dimensional environment of the three-dimensional game space in which the user-controlled character will be animated is rendered (page 17, lines 10-14; Figs. 1-9, reference numeral 1002 in Fig. 11). A plurality of tags are defined at defined locations

with the three-dimensional virtual world that are external to the user-controlled character (page 11, lines 14-20; T1 and T2 in Figs. 6, 7A, and 7B). Each tag is associated with an object and each tag designates a reaction to be made by the user-controlled character and the associated object when the character is within a predefined virtual proximity to the tag (page 4, lines 21-23; reference numeral 10 in Figs. 7A and 7B). A priority value is assigned to each tag (page 5, lines 4-6; T1 and T2 in Figs. 7A and 7B). A user is allowed to control the movement of the user-controlled character within the virtual world (page 9, lines 4-9; Figs. 1-2). When the user-controlled character is not within the predefined virtual proximity to any of the tags, a stored animation sequence is used to animate the character within the virtual world (page 10, lines 3-6; reference numeral 10 in Figs. 1 and 5). When the user-controlled character is within the predetermined virtual proximity to at least one of the tags, a dynamic animation sequence is generated for the user-controlled character and the associated object in the three-dimensional virtual environment based on the tag having the highest priority among the tags within the predetermined proximity to the character; and the location of the tag having the highest priority is used as a parameter for generating the dynamic animation sequence (page 5, lines 6-12; reference number 10, T1 and T2 in Figs. 6-9). The tag is at least initially not apparent to the user (page 4, lines 6-8, page 9, lines 9-11, page 10, line 23 to page 11, line 1; T1 and T2 in Figs. 6-9).

D. Independent Method Claim 12

Independent method claim 12 relates to a method of animating an object in a virtual three-dimensional world of a dynamic three-dimensional game space (page 8, line 21 to page 9, line 4; T2 in Fig. 7A). The three-dimensional environment of the three-dimensional game space in which the object will be animated is rendered (page 17, lines

10-14; Figs. 1-9, reference numeral 1002 in Fig. 11). A tag is defined in the three-dimensional virtual world at a location that is external to the object (page 9, lines 3-4; reference numerals 12 and T in Figs. 1-2). The tag includes a reaction code which designates a reaction for the object when the object is within a defined virtual proximity to the location of the tag (page 4, lines 21-23; reference numeral 10 in Figs. 7A and 7B). The object is moved within the virtual world using a stored animation sequence when the object is not within the defined virtual proximity to the tag (page 10, lines 3-6; reference numeral 10 in Figs. 1 and 5). An animation sequence is dynamically generated for the object in the three-dimensional virtual environment corresponding to the reaction code in the tag information, at least one variable associated with the object, and based on the location of the tag when the object is within the defined virtual proximity to the tag (page 9, lines 4-9; reference numeral 10 and T in Figs. 1-2). An animation sequence is dynamically generated for an area in virtual proximity to the location of the tag (page 9, lines 4-9; reference numeral 10 and T in Figs. 1-2). The tag is at least initially not apparent (page 4, lines 6-8, page 9, lines 9-11, page 10, line 23 to page 11, line 1; T1 and T2 in Figs. 6-9).

(VI) GROUND OF REJECTION TO BE REVIEWED ON APPEAL

All claims 1-16 have been rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

All claims 1-16 have been rejected under 35 U.S.C. § 103(a) as allegedly being “obvious” over Ventrella et al. (U.S. Patent No. 6,545,682) in view of Bickmore (U.S. Publication No. 2003/0206170).

(VII) ARGUMENT

The claimed invention encompasses statutory subject matter under 35 U.S.C. § 101.

Claims 1-16 have been rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. This rejection is respectfully traversed.

At the outset, it is noted that the rejection under Section 101 appeared for the first time in the Office Action dated September 29, 2006. In the Amendment of December 27, 2006, Applicant noted that the rejection under Section 101 appeared to be incomplete, as the form paragraph from the MPEP was not accompanied by any specific reasoning for this new rejection of claims 1-16. Accordingly, all amendments to the claims for Section 101 purposes were held in abeyance pending receipt of the actual reasoning behind this rejection. However, instead of providing any specific reasoning for the rejection, Applicant was “directed to the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” by the Examiner on page 9 of the Final Office Action of March 20, 2007. This response was neither helpful nor warranted by the MPEP.

Although the claims might have been better drafted so as to more clearly comply with the Examiner’s notion of Section 101, Applicant nonetheless respectfully submits that claims 1-16 are directed to statutory subject matter. Claims 1, 7, and 12 each provide a practical application of an abstract idea, law of nature, or natural phenomenon, in compliance with *Diamond v. Diehr*, 450 U.S. 175, 187 (1980), as cited in the Final Office Action. For example, claim 1 relates to a method of animating a user-controlled character in a virtual three-dimensional environment of a dynamic three-dimensional

game space. Claim 7 similarly relates to a method for controlling the animation of a user-controlled character in a virtual three-dimensional world of a dynamic three-dimensional game space. And claim 12 relates to a method for animating an object in a virtual three-dimensional world of a dynamic three-dimensional game space. The dependent claims inherit at least this utility. Thus, the practical application of animation of user-controlled characters and/or objects in a virtual three-dimensional world clearly is required by the plain language of the claims.

Moreover, claims 1, 7, and 12 each lead to a useful, concrete, and tangible result. For example, claim 1 produces the useful, concrete, and tangible result of animating a user-controlled character using a scripted animation sequence in response to user inputs and/or dynamically modifying the user-controlled character's animation and the animation of the object in the three-dimensional virtual environment. Claim 7 similarly produces the useful, concrete, and tangible result of using a stored animation sequence to animate the character within the virtual world and/or generating a dynamic animation sequence for the user-controlled character and the associated object in the three-dimensional virtual environment. And claim 12 leads to the useful, concrete, and tangible result of moving the object within the virtual world using a stored animation sequence, dynamically generating an animation sequence for the object in the three-dimensional virtual environment, and/or dynamically generating an animation sequence for an area. The remaining dependent claims inherit at least this utility and thus encompass similar statutory subject matter.

Still further, the Federal Circuit held in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 U.S.P.Q.2d 1596, 1601 (Fed. Cir. 1998), “that

the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’ – a final share price” Like the calculation of the “final share price” in *State Street Bank*, the invention of the claims relates to the transformation of data and representation of discrete positions of objects in a virtual world to produce an analogous sort of “final animation,” which is a useful, concrete, and tangible result. *State Street Bank* together with this Board’s Precedential Opinion *Ex parte Carl A. Lundgren*, (Appeal No. 2003-2088 in application no. 09/093,516) – which stated that “there is no judicially recognized separate ‘technological arts’ test to determine patentable eligible subject matter under § 101” – makes clear that it is possible to have patentable subject matter without the recitation of a specific computer performing a specific task. Of course, it is noted that a “dynamic three-dimensional game space” as required by the claims clearly implies some form of computer structure on which game objects are stored and/or run and subsequently animated.

Thus, the claims do not require an abstract number; rather, the claims require that animation of an object in a dynamic three-dimensional game space – a result that is useful, tangible, and concrete. In a nutshell, the claimed animation of objects in three-dimensional virtual worlds is not abstract and leads to a useful, concrete, and tangible result. Thus, Applicant respectfully requests that the rejection under 35 U.S.C. § 101 be reversed.

Claims 1, 7, and 12 are not obvious under 35 U.S.C. § 103(a).

Claims 1-16 have been rejected under 35 U.S.C. § 103(a) as allegedly being “obvious” over Ventrella et al. (U.S. Patent No. 6,545,682) in view of Bickmore (U.S. Publication No. 2003/0206170). This rejection is respectfully traversed.

Each and Every Limitation of Claim 1 Is Not Taught or Suggested by the Alleged Combination of Ventrella and Bickmore.

For a claim to be properly rejected under 35 U.S.C. § 103, each and every limitation of that claim must be taught or suggested in a combination of references. Ventrella and Bickmore, alone and in combination, do not disclose all of the limitations of claim 1. For example, Ventrella and Bickmore, alone and in combination, fail to teach or suggest “using the location of the tag and the tag information to dynamically modify the user-controlled character’s animation and the animation of the object in the three-dimensional virtual environment associated with the tag in real time.”

Previous Office Actions have alleged that the stimulus mentioned in Ventrella discloses the tags required by claim 1. Applicant continues to object to this “reasoning.” According to Ventrella, stimuli only have an affect on an avatar if a gene and/or a Newtonian mechanics module associated with that avatar are applicable and activated. The avatars of Ventrella are non-functional without both genes and the Newtonian mechanics module. The invention defined by the claims, however, is not comparable, because the user-controller character is animated based on user input and information stored in the tag, regardless of any peculiar genes specific to the user-controller character.

The Examiner reads too much into Ventrella and thus misrepresents its teachings. In Ventrella, the stimuli reasonably may be considered objects. Indeed, a bird is a

stimulus according to Ventrella and also plainly is an object. However, in such a case, there is no tag in the object because the reaction to the stimulus is dependent on the genes of the user-controlled character. A burning forest – which the Examiner seems to classify as being both an object and a tag simultaneously – is neither an object nor a tag, nor both an object and a tag; rather, it is the virtual environment itself. The avatar's reaction in this case is to the virtual world, and again not to any object having a tag. Moreover, in Ventrella, such stimuli have no meaning without the genes of the avatar.

A better approach to understanding Ventrella involves treating the stimuli and the genes as what they are, at least as taught in Ventrella. Namely, a stimulus is something that stimulates an avatar. A gene “represents a different user-perceivable attribute of the avatar” (abstract). Although the stimuli and genes interact with each other, they simply are not equivalent to the objects, tags, and tag information of the claimed invention. As such, stimuli cannot reasonably be treated as the tags of the claimed invention.

Even assuming, *arguendo*, that Ventrella teaches using a tag to animate an avatar, Ventrella does not teach using the same tag to animate the object associated with the tag. For example, according to Ventrella, an avatar might stare at a bird or turn its head to follow the flight of the bird. Assuming that the bird is a tagged object, Ventrella simply does not teach or suggest doing anything to the bird itself.

To the contrary, as the example provided with reference to Figures 6-9 of the present application illustrates, both the user-controlled character and an object associated with a tag is modified in response to tag information embedded therein.

Bickmore was introduced to teach embedding tag information into a tag. However, Bickmore fails to make up for the deficiency noted with respect to Ventrella.

Specifically, Bickmore only discloses having an avatar provide information related to the document when the avatar is dragged over the tagged object (e.g. text, an image, etc.). In no way does Bickmore teach or suggest modifying the tagged object. To the contrary, Bickmore teaches avatar-mediated navigation through a document or series of documents. The notion of changing the text, image, or other tagged object of a document based on information stored in that tag is foreign to Bickmore. Indeed, the Avatar Scripting Language disclosed in Bickmore relates merely to methods of changing the avatar, not any part of the document itself.

The Final Office Action alleges that:

“It is implicitly taught that selecting a hypertext link for navigation, as taught by Bickmore et al., would result in the display (animation) of new information, tied to said hypertext link, within an area of said hypertext link (i.e. the display of a new page of information overlaid on a previous page after said hypertext link is selected)” (page 5, first full paragraph).

Applicant agrees that selecting a hypertext link for navigation would result in the display of a new page of text overlaid on the previous page of text. But Applicant does not agree that overlaying a new static webpage on top of an old static webpage would result in any kind of animation. Replacing a single, static webpage with another single, static webpage is not animation as required by the claims. By extension, then, the alleged combination cannot result in animation of both the user-controlled character and the tagged object as required by the claims. This difference further emphasizes Applicant’s contention, repeated below, that the combination of Ventrella and Bickmore is inappropriate.

Because the alleged combination of Ventrella and Bickmore does not disclose at least this limitation of claim 1, Applicant respectfully requests that the rejection under 35 U.S.C. § 103 be reversed.

The Alleged Combination of Ventrella and Bickmore Would Not Result in Claim 1.

Even if clicking on a hypertext link were considered to result in animation and even if Ventrella and Bickmore were forcibly combined in the manner alleged by the Examiner, one of ordinary skill in the art still would not achieve the invention defined by claim 1. In particular, given the purported teachings of the alleged combination, a user-controlled character coming into proximity to a tagged object would cause an animation of the user-controlled character and an animation of the underlying virtual environment, not an animation of the tagged object. In marked contrast, claim 1 requires animating the user-controlled character and the tagged object in the virtual environment when the user-controlled character comes into proximity to the tagged object.

Thus, the alleged combination not only would not result in the claimed invention, but the alleged combination also would change the underlying principle of operation of the claimed invention and the base reference (i.e., Ventrella), at least insofar as it would result in a change to the virtual world, not to a change of a tagged object in the virtual world. As such, even if the combination of Ventrella and Bickmore were appropriate, the alleged combination still would not render obvious the invention defined by the claims. This, Applicant again respectfully requests that the rejection under 35 U.S.C. § 103 be reversed.

The Alleged Combination of Ventrella and Bickmore is Inappropriate.

A common refrain throughout the prosecution of this application has been the Examiner's contention that one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references. Applicant has and continues to agree with this general statement. However, Applicant notes that when

references are so fundamentally different, such differences often argue against their combination. Such is the case here.

In particular, the differences between the two references are so numerous and significant that one of ordinary skill in the art at the time of the invention would not have been motivated to combine the teachings of Bickmore and Ventrella. Furthermore, the proposed combination of Ventrella and Bickmore would change the principle of operation of the prior art invention being modified. Thus, Applicant respectfully submits that the teachings of the references are not sufficient to render the claims *prima facie* obvious.

First, Ventrella is directed to a player character in a three-dimensional virtual world, whereas Bickmore is directed to a flat, two-dimensional document. The avatar of Bickmore exists as attached to a flat, two-dimensional document (i.e., docked at the side of an HTML document or over an “avatar link”). There is no mistaking that Bickmore pertains to a two-dimensional avatar. Bickmore explicitly states that “in this discussion, a two-dimensional avatar is described” (§ 40). When the avatar is resized, it is scaled over two dimensions (§ 56).

Similarly, there is no mistaking that Bickmore is directed to a document. Indeed, the whole purpose of the invention is to “provide[] a method and system for creating autonomous personal representatives, or avatars, that can be attached to an electronic document” (§ 9). As the abstract states:

A method and apparatus for facilitating communication about a document between two users creates autonomous, animated computer characters, or avatars, which are then attached to the document under discussion. The avatar is created by one user, who need not be the author of the document, and is attached to the document to represent a point of view.

The Background notes problems with adding information to documents (§ 7). All of the example embodiments described in the specification pertain to documents and/or HTML documents. Thus, Applicant submits that one of ordinary skill in the art would not look to a method for conveying pre-recorded information in a static, flat document when trying to build an avatar to exist in, and respond to, a dynamic, three-dimensional virtual world.

The Examiner apparently interprets Applicant's argument with respect to the fundamental differences between Ventrella and Bickmore as being related solely to an argument as to whether the references are in analogous art. Although this is a mischaracterization of Applicant's arguments, the Examiner's contention – that the references are analogous art – is worth comment and prompt dismissal.

The Examiner appears to argue that the instant application, Ventrella, and Bickmore all relate to the same field of endeavor – namely, “computer graphics.” At best, this contention is inaccurate. The instant application does relate broadly to computer graphics. However, field of endeavor more accurately may be described as involving game and graphics design for the creation of an interactive and interesting game world wherein a game designer may more easily and efficiently create animations. By contrast, in Ventrella clearly, a “method and apparatus for creating an avatar are described” (abstract). Thus, Ventrella is focused on a particular character – the player character – whereas the instant application relates to the interaction(s) between the player character and/or object(s) and the entire virtual world. Be that as it may, in marked contrast to both the instant invention and Ventrella, Bickmore relates to “a method and

apparatus for facilitating communication about a document between two users [that] creates autonomous, animated computer characters, or avatars, which are then attached to the document under discussion” (abstract). Bickmore does not remotely approach the field of computer graphics, nor does it relate to computer graphics within a game world. Thus, it is not understood how the Examiner could reasonably maintain that the three disclosures relate to the same field of endeavor.

Additionally, the Examiner’s contention regarding the possibility of Bickmore teaching a three-dimensional environment lacks merit. From the outset, it appears that the Examiner is relying on the “teachings” – or lack of limitations – of the claims in a mere publication. The fact that the claims do not specifically require a two-dimensional environment does not mean that the body of the specification includes any broader teachings. Indeed, it does not. As covered above, Bickmore is limited to a static, two-dimensional document environment. The contention that “the mapping (e.g. the application) of 2D techniques into a 3D environment are considered well known to one skilled in the art” (page 11 of the Final Office Action) is puzzling. The undersigned has never heard of a three-dimensional document and can find no support therefor in the teachings of Bickmore. Moreover, the Examiner does not make clear the “art” to which he is referring. That is, the “mapping” of 2D techniques to a 3D environment may arguably be known in the gaming arts, but it certainly is not well-known in the document navigation arts of Bickmore. In any case, Applicant submits that the instant invention, Ventrella, and Bickmore do not constitute analogous art.

Second, the Examiner seems to suggest that Ventrella and Bickmore each address the same problem as the instant disclosure – namely, in the Examiner’s words, “the

navigation of virtual avatars in a virtual environment.” Again, it is noted that Ventrella clearly relates to avatar design for possible use in a game environment and Bickmore relates to communications about a static document. In fact, neither Venterlla nor Bickmore pertain to the problem the instant invention addresses – e.g., convenient graphics generations techniques that avoid the use of scripting. Instead, Ventrella relates to autonomous avatar functionality, while Bickmore relates to guided navigation in a document. Thus, the three disclosures do not address the same problem.

Even if a person having ordinary skill in the art were presented with Ventrella and Bickmore, the combination therebetween would fundamentally alter the underlying principles of operations. Thus, Applicant submits that the alleged combination is insufficient to render the claimed invention obvious.

As a preliminary matter, Applicant appreciates, and generally agrees with, the quotation of *In re Keller*, 642 F.2d 413 (CCPA 1981) found on page 11 of the Final Office Action. As can be appreciated from *In re Keller*, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference, nor is it that the claimed invention must be expressly suggested in any one or all of the references. However, Applicant wishes to point out that “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.” See MPEP 2143.01 (citing *In re Ratti*, 270 F.2d 810 (CCPA 1959)). Thus, the Applicant questions the rapid dismissal and apparent lack of consideration provided to Applicant’s arguments presented in this vein.

Similarly, given the fundamentally different purposes the avatars in Ventrella and Bickmore serve, one of ordinary skill in the art at the time of the invention (and even today) would find the teachings of Ventrella and Bickmore inapposite based on the comparative levels of spontaneity and the modes of navigation. Specifically, Ventrella teaches having a player character in a virtual world react dynamically based on pre-defined characteristics (genes). Bickmore, on the other hand, teaches having an avatar react in response to a calculated, purposeful action. As suggested in Bickmore, a purposeful action might include a user moving a mouse over certain pre-defined text. Thus, the teachings and suggestions of Bickmore involve calculated movements by the user that are not reconcilable with the purported spontaneity of Ventrella, and, especially, with the dynamic virtual world of the claimed invention.

Moreover, Ventrella teaches navigating through a virtual world via an avatar. Bickmore, however, teaches navigating through a document space using a separate input device. Unlike the avatar in Ventrella that visually represents user input, the avatar in Bickmore only responds to certain pre-defined events (such as a user clicking on a certain link). Thus, the objects of the avatars in Ventrella and Bickmore are fundamentally different – the avatar of Ventrella is the manifestation of user input that changes according to pre-defined stimuli, while the avatar of Bickmore is merely a means for conveying certain pre-defined information allegedly stored in tags in response to a pre-defined user action. Differently stated, the user in Ventrella moves through a virtual environment by using the avatar, whereas the avatar in Bickmore moves the user through a document. Thus, because the objects of the respective avatars differ so greatly, Applicant again respectfully submits that one of ordinary skill in the art would not

combine the teachings of Ventrella and Bickmore without altering the underlying principles of the prior art.

Third, Applicant submits that one of ordinary skill in the art would not combine Ventrella and Bickmore because of the very examples contained in Bickmore. Again, Ventrella is directed to a three-dimensional, virtual environment. The examples in Bickmore, however, are directed to static documents created with HTML. Words, paragraphs, and the like are tagged in Bickmore, whereas cats, forests, birds, and the like are tagged in Ventrella. The environments used and objects tagged are significantly different. Applicant submits that one of ordinary skill in the art at the time of the invention would not consider techniques associated with a webpage when building a game.

The Final Office Action alleges that motivation to combine comes from Ventrella's suggestion "that stimuli can be prioritized using any reasonable criteria." Even if true, the criteria used to prioritize stimuli (which are not even tags in the first place) simply does not pertain to the means used to do the prioritization. Furthermore, a recognition for a need for ordering criteria does not import a concomitant need for specific means of prioritization. Even if convenience were a sufficient motivation, there are no teachings of such needs with respect to tags (or even stimuli) in the prior art of record. The only place convenience and ease of programming appears is in Applicant's specification. But the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure.

For at least the foregoing reasons, then, Applicant respectfully submits that one of ordinary skill in the art at the time of the invention would not have combined the teachings of Ventrella and Bickmore. Such a combination would change the underlying principles of the prior art, can only be the result of impermissible hindsight, and likely is suggested only by Applicant's own specification.

Accordingly, Applicant respectfully requests that the rejection be reversed.

For at least the above reasons, Applicant believes that the claimed invention is not obvious in view of the cited prior art. Applicant also submits that amended independent claims 7 and 12 are not rendered obvious by the cited references for substantially the same reasons set forth above with respect to claim 1. Applicant respectfully submits that the remaining claims (i.e. claims 2-6, 8-11, and 13-16) are allowable at least by virtue of their respective dependence from allowable independent amended claims 1, 7, and 12.


CONCLUSION

In conclusion it is believed that the application is in clear condition for allowance; therefore, early reversal of the Final Rejection and passage of the subject application to issue are earnestly solicited.

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Respectfully submitted,

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(VIII) CLAIMS APPENDIX

1. A method of animating a user-controlled character in a virtual three-dimensional environment of a dynamic three-dimensional game space, comprising:
 - rendering the three-dimensional environment of the three-dimensional game space in which the user-controlled character will be animated;
 - defining a tag at a location in the three-dimensional virtual environment that is external to the user-controlled character, and assigning tag information to the tag that designates a type of reaction for the user-controlled character and a type of reaction for an object associated with the tag when the user-controlled character comes in proximity to the tag;
 - animating the user-controlled character using a scripted animation sequence in response to user inputs;
 - detecting when the user-controlled character is within a predetermined proximity to the tag; and,
 - when the user-controlled character is within a predetermined proximity to the tag, using the location of the tag and the tag information to dynamically modify the user-controlled character's animation and the animation of the object in the three-dimensional virtual environment associated with the tag in real time;
 - wherein the tag is defined at the location such that the tag is at least initially not apparent to the user.

2. The method of claim 1, further including detecting when the character is no longer within the predetermined proximity to the tag and, upon such detection, returning to the scripted animation for the character.

3. The method of claim 1, further including using key frames, inbetweening and inverse kinematics to dynamically modify the character's animation when in proximity to the tag.

4. The method of claim 1, further including defining a human-like reaction as the type of reaction and dynamically generating an animation that corresponds to the human-like reaction for the character when in proximity to the tag.

5. The method of claim 1, wherein dynamically modifying the character's animation in real time includes causing the character to look at the location in the virtual world where the tag has been defined.

6. The method of claim 1, further including defining a plurality of said tags at different locations in the virtual world and assigning tag information to each tag, wherein each tag causes a different dynamic animation sequence to be generated for the character when the character is within a predetermined proximity thereto.

7. A method for controlling the animation of a user-controlled character in a virtual three-dimensional world of a dynamic three-dimensional game space, comprising:

rendering the three-dimensional environment of the three-dimensional game space in which the user-controlled character will be animated;

defining a plurality of tags at defined locations with the three-dimensional virtual world that are external to the user-controlled character, wherein each tag is associated with an object and each tag designates a reaction to be made by the user-controlled character and the associated object when the character is within a predefined virtual proximity to the tag;

assigning a priority value to each tag;

allowing a user to control the movement of the user-controlled character within the virtual world;

when the user-controlled character is not within the predefined virtual proximity to any of the tags, using a stored animation sequence to animate the character within the virtual world; and,

when the user-controlled character is within the predetermined virtual proximity to at least one of the tags, generating a dynamic animation sequence for the user-controlled character and the associated object in the three-dimensional virtual environment based on the tag having the highest priority among the tags within the predetermined proximity to the character; and using the location of the tag having the highest priority as a parameter for generating the dynamic animation sequence;

wherein the tag is at least initially not apparent to the user.

8. The method of claim 7, further including detecting when the character is no longer within the predetermined proximity to any of the tags and, upon such detection, returning to the stored animation sequence for the character.

9. The method of claim 7, further including using key frames, inbetweening and inverse kinematics to generate the dynamic animation sequence for the character.

10. The method of claim 7, further including defining a human-like reaction as the reaction for each tag.

11. The method of claim 7, wherein the dynamic animation sequence causes the character to look at the location in the virtual world where the tag has been defined.

12. A method for animating an object in a virtual three-dimensional world of a dynamic three-dimensional game space, comprising:

rendering the three-dimensional environment of the three-dimensional game space in which the object will be animated;

defining a tag in the three-dimensional virtual world at a location that is external to the object, wherein the tag includes a reaction code which designates a reaction for the object when the object is within a defined virtual proximity to the location of the tag;

moving the object within the virtual world using a stored animation sequence when the object is not within the defined virtual proximity to the tag;

dynamically generating an animation sequence for the object in the three-dimensional virtual environment corresponding to the reaction code in the tag information, at least one variable associated with the object, and based on the location of the tag when the object is within the defined virtual proximity to the tag; and,

dynamically generating an animation sequence for an area in virtual proximity to the location of the tag;

wherein the tag is at least initially not apparent.

13. The method of claim 12, further including defining a plurality of said tags, wherein each tag has a different reaction code and is assigned a priority value, and further including using the priority value to determine which tag to base the dynamically generated animation sequence on when the object is within a defined proximity to more than one of the tags.

14. The method of claim 12, further including using key frames, inbetweening and inverse kinematics to generate the dynamic animation sequence for the object.

15. The method of claim 13, further including defining a human-like reaction as the reaction indicated by the reaction code for each tag.

16. The method of claim 15, wherein the dynamic animation sequence causes the object to look at the location in the virtual world where the tag has been defined.

(IX) EVIDENCE APPENDIX

None.

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(X) **RELATED PROCEEDINGS APPENDIX**

None.